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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,463

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Michael Fee

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1294

27557

7590

03/08/2012

BLANK ROME LLP

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EXAMINER

WARTALOWICZ, PAUL A

ART UNIT

PAPER NUMBER

1735

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,463	<b>Applicant(s)</b> FEE ET AL.	
	<b>Examiner</b> PAUL WARTALOWICZ	<b>Art Unit</b> 1735	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 1-9 and 27-32 is/are pending in the application.
- 5a) Of the above claim(s) 27-32 is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-9 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 12/22/2011 have been fully considered but they are not persuasive.

Applicant argues that Leghissa does not teach that multiple subconductors have been cut from a common substrate. In the alternative, it would not have been obvious to one skilled in the art in view of Leghissa to cut multiple conductors from a common substrate or to do so with similarly oriented element portions of the conductor elements being cut from common parts of the substrate across a width of the substrate.

However, Leghissa teaches that it is advantageous to combine conductor elements that are designed in the same way (para. 0021). Cutting serpentine conductors from the same substrate would enable conductor elements to be designed in the same way. Additionally, Leghissa teaches that at least one conductor is cut from an initial body (para. 0045). The phrase "at least one" element includes multiple elements. This teaching appears to infer that multiple conductors are cut from a common substrate (initial body). Therefore, it appears that the disclosure of Leghissa renders obvious the limitation of cutting multiple conductors from a common substrate, and to do so with similarly oriented element portions of the conductor elements being cut from common parts of the substrate across a width of a substrate as in the claimed invention.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: in line 13, it appears that the recitation "andinterleaving" is a typographical error and should recite --and interleaving--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leghissa (WO 03/100875 (US 2005/0227873 will be referred to herein)).

Leghissa teaches a method for forming a high temperature superconductor conductor (para. 0015) comprising transposed conductor elements (para. 0022) comprising forming a layer of an HTS on one or more substrates and cutting the substrates with an HTS layer thereon (para. 0019) into a multiple number of generally longitudinally extending serpentine conductor elements each comprising a series of

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element portions which periodically change direction relative to one another in a plane of the substrate.

Leghissa fails to teach the limitation of said serpentine conductor elements are cut from the substrate with similarly oriented element portions of the serpentine conductor elements being cut from common parts of the substrate across a width of the substrate.

However, Leghissa teaches that it is advantageous to combine conductor elements that are designed in the same way (para. 0021). Cutting serpentine conductors from the same substrate would enable conductor elements to be designed in the same way.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide cutting serpentine conductors from the same substrate in Leghissa in order to enable conductor elements to be designed in the same way (para. 0021) as taught by Leghissa.

Additionally, it appears that this teaching in Leghissa meets the limitation of the said serpentine conductor elements are cut from the substrate with similarly oriented element portions of the serpentine conductor elements being cut from common parts (the substrate) of the substrate across a width of the substrate

Additionally, Leghissa teaches interleaving the serpentine conductor elements to form a longitudinally extending transposed HTS conductor (para. 0020, 0022, fig. 3).

Regarding claims 2-3, Leghissa teaches that a first set of conductor element portions having a generally common longitudinal axis and a second series of element

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portions having a generally common longitudinal axis which is spaced from the longitudinal axis of said first portions in a plane of the substrate, with connecting portions of the substrate elements between, wherein a layer of HTS is formed on the surface of the elements. See Leghissa at fig. 2, section V.

Regarding claims 4 and 5, Leghissa teaches that the connecting portions are shorter than the conductor elements (the connecting portions are the portions on an angle delineated by section H in figures 2 and 3).

Regarding claims 6-9, Leghissa teaches that the serpentine conductor elements comprise a first series of generally parallel element portions which extend at an angle across a longitudinal axis of the conductor element in a first direction and a second series of spaced generally parallel element portions which extend across the longitudinal axis of the conductor element in opposite directions (fig. 2, 3; section H and the parallel angled conductor elements in figure 2, and the next section of oppositely angled sections across the longitudinal axis). Additionally, there are connection portions of the conductor elements between adjacent ends of the element portions of first series and the second series (the straight portions of the conductor are interpreted as the connecting portions connecting the first series (section H) and the second series (next section of oppositely angled sections across the longitudinal axis), fig. 2, section H).

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL WARTALOWICZ whose telephone number is (571)272-5957. The examiner can normally be reached on 8:30-6 M-Th and 8:30-5 on Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica L. Ward can be reached on (571) 272-1223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Paul A Wartalowicz/  
Examiner, Art Unit 1735